

Bradford Island In-Water Removal Work

Monitoring Location: Pile 1

**Monitoring Dates:** 2/27, 2/28, 3/1, 3/2, 3/4/2002

Weather: 2/27: Sunny, 60 F, calm

2/28: Partly sunny, 40-45 F, calm

3/1: Partly sunny, 35 F, calm

3/2: Sunny, 35 F, slight easterly wind, calm

Date	Station	Total River Depth (ft) <sup>1</sup>	Time	Depth of Reading (ft) <sup>2</sup>	Turbidity Reading (NTU)	Notes/Next Reading <sup>3,4</sup>
	Sample Location #	(13)	1300	including (in)	3.55	Background sample location at Pile 1
	020227IW04WC	30			0.00	
			1330			
			1410	24	6.78	Diver in water at 1410
2/27/02	Down current (upriver)	30		18	7.83	Current real low
			1425	6	8.92	
			1430	28	7.29	Current real low
2/27/02	Up current (downriver)	35		21	7.5	Next reading: 1640
			1440	7	9.18	
				40	5.43	Current is very strong (strongest yet-generating power?)
2/27/02	Down current	50+	1445	30	5.96	
			1450	10	2.5	
			1500	40	4.17	Strong current
2/27/02	Down current	50+		30	5.43	Next reading: 1515
			1505	10	6.87	
			1515	40	8.63	Strong current
2/27/02	Down current	50+	1525	30	9.18	
				10	10.02	
			1535	40	7.5	Strong current
2/27/02	Down current	50+	1545	30	7.5	
				10	9.18	
			1555	40	5.45	Strong current
2/27/02	Down current	50+		30	6.06	
			1605	10	7.97	
			1620	40	4.56	Divers out of water at 1630
2/27/02	Down current	50+		30	6.29	
			1625	10	7.45	
			0755	28	3.77	Checked meter with 1000 NTU (912 NTU) and 20 NTU (20) solutions
2/28/02	Up current (west of work area)	35		21	4.17	One diver in water at 0845

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2/28: Partly sunny, 40-45 F, calm

3/1: Partly sunny, 35 F, calm

3/2: Sunny, 35 F, slight easterly wind, calm

Date	Station	Total River	Time	Depth of	Turbidity	Notes/Next Reading <sup>3,4</sup>
		Depth (ft) <sup>1</sup>		Reading (ft) <sup>2</sup>	Reading (NTU)	
			0800	7	5.43	Second diver in water at 0905
	Down current (east of work		0910	22.5	4.17	
2/28/02	area)	28		17	4.77	
			0915	5.5	6.06	
	Down current (east of work		0925	22.5	5.64	Visibility 5 feet
2/28/02	area)	28		17	6.06	
			0930	5.5	6.06	
	Down current (east of work		0940	22.5	4.17	Visibility 5 feet
2/28/02	area)	28		17	4.17	
			0945	5.5	4.75	
	Down current (east of work		0950	22.5	6.06	Visibility 5 feet
2/28/02	area)	28		17	7.08	
			0955	5.5	4.98	
	Down current (east of work	rk 28	1005	22.5	4.35	
2/28/02	area)		1015	17	4.98	
				5.5	6.66	
	Down current (east of work		1025	22.5	5.64	
2/28/02	area)	28	1030	17	4.77	
				5.5	6.06	
	Down current (east of work		1040	22.5	3.96	One diver out of water at 1040
2/28/02	area)	28		17	3.96	Current picked up (very strong now)
			1045	5.5	6.87	
			1105	28	7.08	Very strong easterly current
2/28/02	Up current	35		21	6.55	Next reading: 1310
			1110	7	6.98	
			1140	22.5	7.94	Next reading: 1155
2/28/02	Down current	28	1145	17	8.27	
				5.5	7.5	
			1155	22.5	6.66	Next reading: 1210

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Date	Station	Total River	Time	Depth of	Turbidity	Notes/Next Reading <sup>3,4</sup>
		Depth (ft) <sup>1</sup>		Reading (ft) <sup>2</sup>	Reading (NTU)	
2/28/02	Down current	28		17	6.27	
			1200	5.5	7.29	
			1210	22.5	7.08	
2/28/02	Down current	28		17	7.5	
			1215	5.5	9.55	
	Sample Location #		1300		3-8	Spiked at 10-14 for ~10 seconds
2/28/02	020228IW05WC					Monitored from man basket hung by crane
			1400			
			1445	28	8.16	1400-1500: Used suction hose under electrical debris
2/28/02	Up current	35		21	8.55	(Foss in motor boat)
			1450	7	6.66	
	Down current (off barge as		1500	40	6.06	Strong current
2/28/02	Foss is using the boat)	50+		30	5.64	
			1505	10	7.59	
			1515	40	8.16	Strong current
2/28/02	Down current	50+		30	8.55	One diver out of water
			1520	10	7.08	
			1530	40	6.66	
2/28/02	Down current	50+		30	8.33	
			1535	10	6.45	
			1550	40	3.98	Current picked up
2/28/02	Down current	50+		30	6.06	Diver and basket out of water at 1600
			1555	10	4.77	
			0745	28	8.16	Pool elevation dropped ~1 foot (74 feet MSL approx)
3/1/02	Up current	35		21	8.37	] '' ' '
			0750	7	7.95	
			0850	32	1.86	Diver in water at 0840
3/1/02	Down current (in boat)	40		24	2.07	Strong current
	` ,		0855	8	5.64	Visibility 5 feet

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Date	Station	Total River	Time		Turbidity	Notes/Next Reading <sup>3,4</sup>
		Depth (ft) <sup>1</sup>		Reading (ft) <sup>2</sup>	Reading (NTU)	
			0905	32	2.07	Current is stronger here (eastern tip of island) than at background
3/1/02	Down current (in boat)	40		24	3.86	location
			0910	8	10.86	
			0920	32	2.07	Visibility 5 feet
3/1/02	Down current (in boat)	40		24	3.54	
			0925	8	5.43	
			0935	32	2.54	
3/1/02	Down current (in boat)	40		24	3.33	
			0940	8	2.91	
			1025	32	5.64	Changed batteries
3/1/02	Down current (in boat)	40		24	6.66	Visibility 5 feet
			1035	8	7.08	Current dropped
			1045	32	3.96	Visibility 5 feet
3/1/02	Down current (in boat)	40		24	5.64	
			1050	8	6.27	
			1100	32	3.13	Current picked up
3/1/02	Down current (in boat)	40		24	2.91	
			1105	8	5.64	
			1115	32	5.64	
3/1/02	Down current (in boat)	40		24	6.06	
			1120	8	4.56	
			1130	28	5.43	One diver out of water at 1145
3/1/02	Up current	35		21	6.06	
			1135	7	6.27	
			1200	32	3.54	Current is stronger downstream location than at the upstream location
3/1/02	Down current	40		24	3.75	
			1210	8	6.06	
			1220	32	4.77	Second diver and basket out of the water at 1235
3/1/02	Down current	40		24	5.64	

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Date	Station	Total River	Time	Depth of	Turbidity	Notes/Next Reading <sup>3,4</sup>
		Depth (ft) <sup>1</sup>		Reading (ft) <sup>2</sup>	Reading (NTU)	
			1225	8	5.43	
			1235	32	4.56	Both divers and basket out of the water
3/1/02	Down current	40		24	6.66	1240-1430: Remove debris from beach (on shore)
			1240	8	5.64	
			1440	40	6.87	From barge (Foss using the boat to pump)
3/1/02	Down current	50+		30	7.5	Very strong current
			1445	10	4.77	
			1455	40	3.17	From barge (Foss using the boat to pump)
3/1/02	Down current	50+		30	5.64	Very strong current
			1500	10	5.85	
			1520	40	5.22	From barge (Foss using the boat to pump)
3/1/02	Down current	50+		30	5.64	Very strong current
			1525	10	7.5	
		50+	1535	40	6.06	From barge (Foss using the boat to pump)
3/1/02	Down current			30	6.06	Very strong current
			1540	10	7.08	Readings fluctuating
			1615	32	6.06	Foss finished with boat
3/1/02	Down current	40		24	4.77	
			1620	8	5.23	
			1630	32	5.64	First diver out of water at 1628
3/1/02	Down current	40		24	4.77	Second diver out of water at 1633
			1635	8	5.85	Basket out at 1633
			0825	24	3.75	
3/2/02	Up current (west of work area)	30		18	5.43	1
	,		0830	6	4.98	
			0900	32	4.77	Diver in water at 0850
3/2/02	Down current (in boat)	40		24	6.66	1
	` ,		0905	8	4.98	
			0915	32	3.75	Visibility 5 feet

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Date	Station	Total River	Time	Depth of	Turbidity	Notes/Next Reading <sup>3,4</sup>
		Depth (ft) <sup>1</sup>		Reading (ft) <sup>2</sup>	Reading (NTU)	
3/2/02	Down current (in boat)	40		24	2.91	Stronger current at down current location
			0920	8	6.27	
	Down current (in boat)		0930	32	5.46	Next reading: 0945
3/2/02		40		24	7.29	
			0935	8	7.71	
			0945	32	4.77	Next reading: 1000
3/2/02	Down current (in boat)	40		24	4.35	
			0950	8	5.43	
			1000	32	6.87	Visibility 5 feet
3/2/02	Down current (in boat)	40		24	9.18	Next reading: 1015
			1005	8	7.08	
			1015	32	4.77	Next reading: 1030
3/2/02	Down current (in boat)	40		24	4.35	
			1020	8	6.06	
		40	1030	32	6.87	First diver out at 1030
3/2/02	Down current (in boat)			24	8.76	Next reading: 1045
			1035	8	5.64	
			1045	32	4.17	
3/2/02	Down current (in boat)	40		24	4.35	
			1050	8	6.45	
			1115	24	9.18	Wind picked up (5-10 mph)
3/2/02	Up current	30		18	8.37	
			1120	6	5.43	
			1130	32	3.12	Current stronger at down current location compared with up current
3/2/02	Down current	40		24	4.77	
			1135	8	6.45	
			1145	32	3.12	Current picked up (very strong)
3/2/02	Down current (in boat)	40		24	4.17	
			1150	8	5.43	

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Date	Station	Total River		Depth of	Turbidity	Notes/Next Reading <sup>3,4</sup>
		Depth (ft) <sup>1</sup>		Reading (ft) <sup>2</sup>	Reading (NTU)	
			1205	32	4.56	Next reading: 1220
3/2/02	Down current (in boat)	40		24	6.06	
			1210	8	4.17	
			1220	32	4.98	
3/2/02	Down current (in boat)	40		24	5.64	
			1225	8	4.77	
			1235	32		Divers out of the water at 1230
3/2/02	Down current (in boat)	40		24		
				8		
			1325	32	5.43	Diver in water at 1320
3/2/02	Down current (in boat)	40		24	4.56	Wind 15-20 mph
			1330	8	4.56	
			1340	32	4.98	Visibility 5 feet
3/2/02	Down current (in boat)	40		24	5.85	Next reading: 1355
			1345	8	5.22	
			1355	32	5.64	
3/2/02	Down current (in boat)	40		24	6.06	
				8	4.98	
			1415	32	3.07	Could not take readings as other motor boat in area
3/2/02	Down current (in boat)	40		24	3.13	
			1420	8	4.98	
			1430	32	4.77	Wind picked up
3/2/02	Down current (in boat)	40		24	5.75	Rough current
				8	4.17	
			1445	24	3.75	Windy (10 mph)
3/2/02	Up current	30	1450	18	3.54	
				6	2.91	
			1505	32	4.98	Current picked up
3/2/02	Down current (in boat)	40		24	4.77	

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2/28: Partly sunny, 40-45 F, calm

3/1: Partly sunny, 35 F, calm

3/2: Sunny, 35 F, slight easterly wind, calm

Date	Station	Total River		Depth of	Turbidity	Notes/Next Reading <sup>3,4</sup>
		Depth (ft) <sup>1</sup>		Reading (ft) <sup>2</sup>	Reading (NTU)	
			1510	8	6.66	
			1520	32	4.17	
3/2/02	Down current (in boat)	40		24	4.17	
			1525	8	6.27	
			1535	32	4.35	
3/2/02	Down current	40		24	4.35	
			1540	8	6.27	
			1550	32	3.96	
3/2/02	Down current	40		24	4.17	
			1555	8	5.43	
			1605	32	3.96	
3/2/02	Down current	40		24	4.17	
			1610	8	5.22	
			1620	32	2.86	One diver and basket out of water
3/2/02	Down current	40		24	2.91	Second diver out of water at 1630
			1625	8	4.17	
			0745	36	6.06	Low pool (down ~2.5 feet)
3/4/02	Up current		0746	25	5.85	
			0747	8.5	5.43	
			0835	40		Low pool, but strong current
3/4/02	Down current (in boat)	50+	0840	30		Diver in water at 0825
				10		
			0900	40	2.07	Changed batteries
3/4/02	Down current (in boat)	50+		30	1.86	Strong current
			0905	10	4.56	
			0915	40	0.86	
3/4/02	Down current (in boat)	50+		30	1.86	
			0925	10	7.5	
			0935	40	1.22	

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3/4: Sunny, 35 F, slight westerly wind

Date	Station	Total River			Turbidity	Notes/Next Reading <sup>3,4</sup>
		Depth (ft) <sup>1</sup>		Reading (ft) <sup>2</sup>	Reading (NTU)	
3/4/02	Down current (in boat)	50+		30	1.86	
			0940	10	5.43	
			1025	40	4.17	Next reading: 1040
3/4/02	Down current (in boat)	50+		30	5.43	
			1030	10	5.22	
			1040	40	4.98	Second diver out of the water at 1045
3/4/02	Down current (in boat)	50+		30	3.75	Next reading: 1055
			1045	10	4.75	
	3/4/02 Down current (in boat)		1100	40	3.75	First diver in water at 1100
3/4/02		50+		30	4.96	
			1105	10	5.64	
	2 Down current (in boat)		1115	40	2.07	Second diver in water at 1110
3/4/02		50+		30	3.54	Next reading: 1130
			1120	10	6.87	
			1130	40	5.43	
3/4/02	Down current (in boat)	50+		30	6.87	
				10	5.22	
			1140	40	2.07	Visibility 5 feet
3/4/02	Down current (in boat)	50+		30	6.06	
			1145	10	5.46	
			1155	40	6.66	Diver out of the water at 1200
3/4/02	Down current (in boat)	50+		30	5.43	
			1200	10	6.27	
	Sample Location #		1330		High of 17	Sampling/removal work complete
3/4/02	020304IW07WC	~20			Avg 7-10	
	(+ USACE Duplicate)		1355			

Notes:

<sup>&</sup>lt;sup>1</sup>River depth measured from average pool elevation to river bottom at the location of the turbidity monitoring station.

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Date	Station	<b>Total River</b>	Time	Depth of	Turbidity	Notes/Next Reading <sup>3,4</sup>
		Depth (ft) <sup>1</sup>		Reading (ft) <sup>2</sup>	Reading (NTU)	

<sup>&</sup>lt;sup>2</sup>Turbidity meter readings will be collected at 20%, 60%, and 80% of the river depth.

<sup>&</sup>lt;sup>3</sup>Note any visual observations of turbidity.

 $<sup>^{4}\</sup>mbox{Enter}$  in the estimated time that the next turbidity readings will be recorded.

Bradford Island In-Water Removal Work

Monitoring Location: Pile 2

Monitoring Dates: 2/22, 2/23, 2/25, 2/26, 2/27/2002

Weather: 2/22: Cloudy, 50-55 F, wind ~10-15 mph

2/23: Rain, 45 F, wind 5-10 mph

2/25: Sunny, clear, very windy

2/26: Sunny, 60 F, very calm, slight breeze

Date	Station	Total River Depth (ft) <sup>1</sup>	Time	Depth of Reading (ft) <sup>2</sup>	Turbidity Reading (NTU)	Notes/Next Reading <sup>3,4</sup>
			0910	23	3.75	1110: Diver in water
2/22/02	Up current (materials barge)	28		13	3.96	
				5-6	5.64	
			0950	34	6.66	Strong easterly current
2/22/02	Down current	42.5		25.5	6.87	Next reading: 1000
				8.5	8.16	
			1000	34	7.09	1006: Diver out of water
2/22/02	Down current	42.5		25.5	6.45	Next reading: 1015
			1005	8.5	8.76	
			1010	34	7.08	1016: Diver in water
2/22/02	Down current	42.5		25.5	7.94	Next reading: 1025
			1015	8.5	10.56	
	2/22/02 Down current		1025	34	6.93	Next reading: 1040
2/22/02		42.5		25.5	7.5	
			1030	8.5	7.55	
		42.5	1040	34	5.22	Hauled out full work bin
2/22/02	Down current			25.5	5.43	Next reading: 1055
			1045	8.5	7.5	
			1055	34	5.22	Next reading: 1110
2/22/02	Down current	42.5		25.5	5.11	
			1100	8.5	6.26	
			1110	34	4.77	Next reading: 1125
2/22/02	Down current	42.5		25.5	5.95	
			1115	8.5	5.8	
			1125	34	2.69	Inform Chris of need for background divers removing debris
2/22/02	Down current	42.5		25.5	3.12	Next reading: 1140
			1130	8.5	6.26	
			1140	34	2.68	Next reading: 1155
2/22/02	Down current	42.5		25.5	3.23	
			1145	8.5	6.27	

Bradford Island In-Water Removal Work

Monitoring Location: Pile 2

Monitoring Dates: 2/22, 2/23, 2/25, 2/26, 2/27/2002

Weather: 2/22: Cloudy, 50-55 F, wind ~10-15 mph

2/23: Rain, 45 F, wind 5-10 mph

2/25: Sunny, clear, very windy

2/26: Sunny, 60 F, very calm, slight breeze

Date	Station	Total River Depth (ft) <sup>1</sup>	Time	Depth of Reading (ft) <sup>2</sup>	Turbidity Reading (NTU)	Notes/Next Reading <sup>3,4</sup>
			1150	34	3	
2/22/02	Down current	42.5		25.5	3.58	1
			1155	8.5	8.06	]
			1220	23	3.96	Clear, visibility 7 feet
2/22/02	Up current	28		14	5.31	Stong current
				5.5	4.36	
			1300	40	6.26	Clear, visibility 7 feet
2/22/02	Down current	50		30	7.58	Stong current
			1305	10	8.57	Next reading: 1315
			1315	40	4.2	Next reading: 1330
2/22/02	Down current	50		30	5.21	
			1320	10	9.21	
			1330	40	5	Diver below boat
2/22/02	Down current	50		30	6.35	
			1335	10	7.41	
			1345	40	5.85	One diver in river
2/22/02	Down current	50		30	6.06	Next reading: 1400
			1350	10	7.06	
			1400	40	4.86	Visibility 7.5 feet
2/22/02	Down current	50		30	5.1	
			1405	10	7.78	
			1415	40	5.5	1415: Second diver in water
2/22/02	Down current	50		30	5.64	Next reading: 1430
			1420	10	6.87	
			1430	40	4.95	
2/22/02	Down current	50		30	5.64	
			1435	10	8.16	
	Up current (west of down		1445	23	6.66	Visibility 7.5 feet
2/22/02	current location)	28		14	6.77	Next reading: 1655
			1455	5.5	8.35	

Bradford Island In-Water Removal Work

Monitoring Location: Pile 2

Monitoring Dates: 2/22, 2/23, 2/25, 2/26, 2/27/2002

Weather: 2/22: Cloudy, 50-55 F, wind ~10-15 mph

2/23: Rain, 45 F, wind 5-10 mph

2/25: Sunny, clear, very windy

2/26: Sunny, 60 F, very calm, slight breeze

Date	Station	Total River Depth (ft) <sup>1</sup>	Time	Depth of Reading (ft) <sup>2</sup>	Turbidity Reading (NTU)	Notes/Next Reading <sup>3,4</sup>
			1510	40	7.29	Visibility 7 feet
2/22/02	Down current	50		30	7.08	Strong current
			1515	10	8.05	Next reading: 1525
			1525	40	7.29	Clear, visibility 7 feet
2/22/02	Down current	50		30	8.65	Next reading: 1540
			1530	10	10.02	
			1540	40	6.66	1545: One diver out
2/22/02	Down current	50		30		Next reading: 1555
			1545	10	8.16	
			1555	40	6.87	Work bin and diver (last one) out of water
2/22/02	Down current	50		30	7.29	
			1600	10	8.16	
			1610	40	6.66	1407: Diver back in water
2/22/02	Down current	50		30	6.87	Diver below boat
			1615	10	7.71	
			1620	40	4.56	Diver and work basket within 20 feet of monitoring location
2/22/02	Down current	50		30	4.77	1625: Diver and work basket out of water
			1625	10	5.43	
		1	0730	24	2.07	No divers in water
2/23/02	Up current	28		16	3.54	Next reading: 0930
	·			5.5	3.54	
			0930	40	2.95	Diver in water at 0840
2/23/02	Down current	50		30	3.17	Sample preparation 0840-0930
			0935	10	4.17	Next reading: 0945
			0945	40	4.9	Second diver in water at 0935
2/23/02	Down current	50		30	5.22	Strong current
			0950	10	6.49	Next reading: 1000
			1000	40	4.17	Visibility 7 feet
2/23/02	Down current	50		30	4.35	Next reading: 1015
			1005	10	6.45	

Bradford Island In-Water Removal Work

Monitoring Location: Pile 2

Monitoring Dates: 2/22, 2/23, 2/25, 2/26, 2/27/2002

Weather: 2/22: Cloudy, 50-55 F, wind ~10-15 mph

2/23: Rain, 45 F, wind 5-10 mph

2/25: Sunny, clear, very windy

2/26: Sunny, 60 F, very calm, slight breeze

Date	Station	Total River Depth (ft) <sup>1</sup>	Time	Depth of Reading (ft) <sup>2</sup>	Turbidity Reading (NTU)	Notes/Next Reading <sup>3,4</sup>
			1010	40	4.36	Foss pumping water/sediment from around electrical debris
2/23/02	Down current	50		30	4.77	
			1015	10	6.45	
			1030	24	5.64	Next reading: 1235
2/23/02	Up current (west of Pile 2)	28		15.5	6.06	
			1035	5.5	4.17	
			1040	40	6.06	Foss finish pumping at 1045
2/23/02	Down current	50		30	6.27	
			1045	10	7.29	
	Sample Location #		1050		26-3.33	Monitored during sample collection
2/23/02	020223IW02WC	10			AVG: 9-10	
			1140			
			1220	24	5.77	Strong current
2/23/02	Up current	28		16	5.22	Next reading: 1425
			1225	5.5	6.66	
			1235	40	4.35	Basket out of water
2/23/02	Down current	50		30	4.77	
			1240	10	6.27	
			1255	40	6.27	One diver still in water
2/23/02	Down current	50		30	6.55	Next reading: 1310
			1300	10	8.50	
			1310	40	5.85	1315: Remove iron rope
2/23/02	Down current	50		30	6.06	
			1315	10	8.16	
			1325	40	6.06	Second diver in water at 1322
2/23/02	Down current	50		30	5.85	1324: Basket out of water
			1330	10	7.71	
			1340	40	5.85	One diver out of water at 1325
2/23/02	Down current	50		30	6.06	1355: Remove iron rope
			1345	10	9.18	

Bradford Island In-Water Removal Work

Monitoring Location: Pile 2

Monitoring Dates: 2/22, 2/23, 2/25, 2/26, 2/27/2002

Weather: 2/22: Cloudy, 50-55 F, wind ~10-15 mph

2/23: Rain, 45 F, wind 5-10 mph

2/25: Sunny, clear, very windy

2/26: Sunny, 60 F, very calm, slight breeze

Date	Station	Total River Depth (ft) <sup>1</sup>	Time	Depth of Reading (ft) <sup>2</sup>	Turbidity Reading (NTU)	Notes/Next Reading <sup>3,4</sup>
			1400	40	3.75	Basket in water
2/23/02	Down current	50		30	3.33	Stronger current closer to island
			1405	10	3.33	Moved further downstream in boat
			1415	40	3.75	Hit 22 NTU for ~3 seconds
2/23/02	2 Down current	50		30	4.77	Hovered at 10 NTU for about 10-15 seconds at depth of 40 ft
				10	5.96	
				40	1-3	Dropped back down to 3.75 for 5 minutes
2/23/02	Down current	50		30	1-3	Monitored continuously for 20 minutes (between 1415 and 1435)
			1435	10	1-3	
			1435	40	1-3	Unit was dragging on the river bottom, which is due to
2/23/02	Down current	50		30	1-3	drop in current and resulted in high reading
			1440	10	1-3	Next reading: 1450
			1445	40	1-3	
2/23/02	Down current	50		30	1-3	
			1450	10	3.78	
			1505	23	3.96	
2/23/02	Up current	28		16	4.17	
			1510	5.5	5.86	
			1520	40	3.77	Clear, visibility 7 feet
2/23/02	Down current	50		30	4.96	
			1525	10	5.64	
			1550	40	5.22	Chris departs site at 1530
2/23/02	Down current	50		30	5.86	Basket out of water at 1640
			1555	10	6.26	
			1605	40	4.96	Basket in water at 1605
2/23/02	Down current	50		30	4.55	Basket out of water at 1608
			1610	10	5.64	Divers out of water at 1615
				24	3.33	Next reading: 1000
2/25/02	Up current (west of Pile 2)	28		16	3.75	Very choppy
_,_5, <b>5_</b>			0800	5.5	6.87	', ' '  '

Bradford Island In-Water Removal Work

Monitoring Location: Pile 2

Monitoring Dates: 2/22, 2/23, 2/25, 2/26, 2/27/2002

Weather: 2/22: Cloudy, 50-55 F, wind ~10-15 mph

2/23: Rain, 45 F, wind 5-10 mph

2/25: Sunny, clear, very windy

2/26: Sunny, 60 F, very calm, slight breeze

Date	Station	Total River Depth (ft) <sup>1</sup>	Time	Depth of Reading (ft) <sup>2</sup>	Turbidity Reading (NTU)	Notes/Next Reading <sup>3,4</sup>
			0845	40	3.33	Diver in water at 0830
2/25/02	Down current	50		30	1.86	Next reading: 0900
			0850	10	3.21	
			0900	40	2.7	Second diver in water at 0905
2/25/02	Down current	50		30	3.21	
			0905	10	3.33	
			0915	40	2.7	Visibility 7 feet
2/25/02	Down current	50		30	3.21	Next reading: 0930
			0920	10	3.33	
			0930	40	2.91	Very strong current
2/25/02	Down current	50		30	2.7	Next reading: 0945
			0935	10	6.06	]
			0945	40	2.7	Next reading: 1000
2/25/02	Down current	50		30	2.91	
			0950	10	7.95	
			1000	40	1.86	Next reading: 1015
2/25/02	Down current	50		30	2.7	
			1005	10	8.37	
			1020	24	3.96	Next reading: 1225
2/25/02	Up current	28		15.5	4.17	
			1025	5.5	7.5	
			1035	40	5.22	Next reading: 1050
2/25/02	Down current	50		30	4.98	
			1040	10	6.06	
			1100	40	3.77	Diver out of water at 1055
2/25/02	Down current	50		30	4.13	Next reading: 1115
			1105	10	7.71	
			1115	40	4.13	Diver back in water at 1115
2/25/02	Down current	50	1120	30	4.13	
				10	6.06	

Bradford Island In-Water Removal Work

Monitoring Location: Pile 2

Monitoring Dates: 2/22, 2/23, 2/25, 2/26, 2/27/2002

Weather: 2/22: Cloudy, 50-55 F, wind ~10-15 mph

2/23: Rain, 45 F, wind 5-10 mph

2/25: Sunny, clear, very windy

2/26: Sunny, 60 F, very calm, slight breeze

Date	Station	Total River Depth (ft) <sup>1</sup>	Time		Turbidity Reading (NTU)	Notes/Next Reading <sup>3,4</sup>
			1140	40	2.95	Next reading: 1155
2/25/02	Down current	50		30	2.7	
			1145	10	2.95	
			1155	40		Winds picked up (25-30 mph)
2/25/02	Down current	50		30	4.17	Next reading: 1210
			1200	10	10.02	
			1210	40		Divers out of water at 1215
2/25/02	Down current	50		30		Moved barges ~60 ft east (upstream) to central third of Pile 2
				10		
Moved bar	ges ~60 feet east (upstream) to	central third o			2.00	IDiversity water at 4050
0/05/00	Up current	20	1340	26.5		Diver in water at 1350
2/25/02		33	1345	20 6.5	4.17 3.96	
				40		Novt readings 1440
2/25/02	Down current	50	1355	30	3.97 4.17	Next reading: 1410
2/25/02	Down carrent	30	1400	10	4.33	
			1410	40	3.75	Second diver in water at 1405
2/25/02	Down current	50	1410	30	3.54	Deep conditions (divers at 46 feet)
2/20/02	Down darrent		1420	10		Next reading: 1430
			1430	40	3.96	J 100
2/25/02	Down current	50	1.50	30	4.54	
			1435	10	8.55	
			1445	40	3.54	Visibility 5 feet
2/25/02	Down current	50		30	3.75	
			1450	10	7.90	
			1520	40	4.13	Changed battery
2/25/02	Down current	50		0.0		<del> </del>
2/25/02	Down current	50		30	4.57	

Bradford Island In-Water Removal Work

Monitoring Location: Pile 2

Monitoring Dates: 2/22, 2/23, 2/25, 2/26, 2/27/2002

Weather: 2/22: Cloudy, 50-55 F, wind ~10-15 mph

2/23: Rain, 45 F, wind 5-10 mph

2/25: Sunny, clear, very windy

2/26: Sunny, 60 F, very calm, slight breeze

Date	Station	Total River Depth (ft) <sup>1</sup>	Time	Depth of Reading (ft) <sup>2</sup>	Turbidity Reading (NTU)	Notes/Next Reading <sup>3,4</sup>
			1530	26.5	5.85	
2/25/02	Up current	23		20	5.64	
			1535	6.5	6.27	
			1535	40	7.75	Next reading: 1550
2/25/02	Down current	50		30	8.06	
			1540	10	10.02	
	1550 40 6.77 Diver out of water at 1550	Diver out of water at 1550				
2/25/02	Down current	50		30	6.86	
			1555	10	7.97	
	Up current (west of work area		0730	26	5.85	Pool is up a few feet
	on materials barge)	33	-	20	6.06	Visibility 5 feet
			0735	6.5	7.95	
Checked tu	urbidity meter vs. calibration fluic	ls: 925 NTU a	•			Water is calm Current still strong Visibility 5 feet
			0820	40	3.33	Diver in water at 0820 (off barge)
2/26/02	Down current	50		30	4.75	Next reading: 0835
			0825	10	4.96	
			0840	23.5		Moved locations (in boat)
2/26/02	Down current	28		17		Next reading: 0855
			0845	5.5	7.95	
			0855	22.5		Next reading: 0910
2/26/02	Down current	28		17	7.08	
			0900	5.5	9.81	
			0910	22.5		Basket out of water at 0930
2/26/02	Down current	28		17	7.08	Next reading: 0925
			0915	5.5	8.06	
			0925	22.5		Basket in water at 0920
2/26/02	Down current	28		17		Next reading: 0940
			0930	5.5	7.29	

Bradford Island In-Water Removal Work

Monitoring Location: Pile 2

Monitoring Dates: 2/22, 2/23, 2/25, 2/26, 2/27/2002

Weather: 2/22: Cloudy, 50-55 F, wind ~10-15 mph

2/23: Rain, 45 F, wind 5-10 mph

2/25: Sunny, clear, very windy

2/26: Sunny, 60 F, very calm, slight breeze

Station	Total River Depth (ft) <sup>1</sup>	Time		Turbidity Reading (NTU)	Notes/Next Reading <sup>3,4</sup>
		0940	22.5	5.22	One diver out of water at 0945
own current	28		17	5.43	Next reading: 0955
		0945	5.5	6.87	
•		0955	22.5	5.10	Next reading: 1010
own current	28	1000	17	5.43	1
			5.5	6.87	
		1010	22.5	4.13	Next reading: 1025
Down current	28		17	5.10	1
		1015	5.5	5.98	]
	28	1025	22.5	4.35	Next reading: 1040
own current			17	4.35	
		1030	5.5	5.10	1
ample Location #		1100		4-6.77	Short spike up to 25 for ~5 seconds.
20226IW03WC	~45				Chris Moody indicated divers camera in showed clear conditions
		1130			predominated during sampling
o	own current  own current  own current  ample Location #	own current 28  own current 28  own current 28  own current 28  ample Location #	own current     28       own current </td <td>own current     28     0940     22.5       own current     28     17       own current     28     1000     17       5.5     1010     22.5       own current     28     17       1015     5.5       own current     28     17       1025     22.5       own current     28     17       1030     5.5       ample Location #     1100       0226IW03WC     ~45</td> <td>own current     28     0940     22.5     5.22       own current     17     5.43       own current     0955     22.5     5.10       own current     1000     17     5.43       own current     5.5     6.87       own current     28     1010     22.5     4.13       own current     28     17     5.10       1015     5.5     5.98       own current     28     17     4.35       own current     28     17     4.35       own current     28     17     4.35       own current     1030     5.5     5.10       own current     1100     4-6.77       own current     45</td>	own current     28     0940     22.5       own current     28     17       own current     28     1000     17       5.5     1010     22.5       own current     28     17       1015     5.5       own current     28     17       1025     22.5       own current     28     17       1030     5.5       ample Location #     1100       0226IW03WC     ~45	own current     28     0940     22.5     5.22       own current     17     5.43       own current     0955     22.5     5.10       own current     1000     17     5.43       own current     5.5     6.87       own current     28     1010     22.5     4.13       own current     28     17     5.10       1015     5.5     5.98       own current     28     17     4.35       own current     28     17     4.35       own current     28     17     4.35       own current     1030     5.5     5.10       own current     1100     4-6.77       own current     45

	Up current (materials barge)		1305	24	7.08	Diver in water at 1310
2/26/02	at final third portion of Pile 2	31		18	7.54	Pool elevation has dropped ~1-2 feet, BPA is generating power
	·		1310	6	6.06	(started at 1200)
			1315	40	6.45	Visibility 5 feet
2/26/02	Down current	50	1320	30	7.08	Next reading: 1330
				10	8.16	
			1330	40	6.45	Current dropped
2/26/02	Down current	50		30	7.08	Next reading: 1345
			1335	10	10.46	
			1345	40	8.06	Visibility 5 feet
2/26/02	Down current	50		30	8.66	Current still low
			1355	10	10.02	

Bradford Island In-Water Removal Work

Monitoring Location: Pile 2

Monitoring Dates: 2/22, 2/23, 2/25, 2/26, 2/27/2002

Weather: 2/22: Cloudy, 50-55 F, wind ~10-15 mph

2/23: Rain, 45 F, wind 5-10 mph

2/25: Sunny, clear, very windy

2/26: Sunny, 60 F, very calm, slight breeze

Date	Station	Total River Depth (ft) <sup>1</sup>	Time	Depth of Reading (ft) <sup>2</sup>	Turbidity Reading (NTU)	Notes/Next Reading <sup>3,4</sup>
			1405	40	5.43	Next reading: 1425
2/26/02	Down current	50		30	6.45	
			1415	10	7.5	
			1425	40	8.06	Next reading: 1445
2/26/02	Down current	50		30	8.66	
			1435	10	10.46	
			1445	40	5.64	Switched divers at 1442
2/26/02	Down current	50		30	6.06	
			1450	10	7.5	
			1500	32	5.22	Very low current
2/26/02	Down current	50		24	5.64	Next reading: 1515
			1505	8	6.66	1
			1515	32	4.17	Very slow current (to the east)
2/26/02	Down current	50		24	4.75	Next reading: 1530
			1520	8	5.22	1
			1530	32	5.1	Next reading: 1545
2/26/02	Down current	50		24	5.43	
			1535	8	6.06	]
			1545	32	4.77	Next reading: 1600
2/26/02	Down current	50		24	5.44	1
			1550	8	4.56	
			1605	32	3.17	Current picked up slightly
2/26/02	Down current	50		24	3.54	Diver out of water at 1415
			1610	8	3.98	
	T .		0740	24	3.33	Diver in water at 0825
2/27/02	Up current (west of work area)	31	37 40	18	3.75	51101 III Water at 0020
2,21,02	7/02 Op current (west of work area	31		6	3.54	1
			0830	30.5	2.7	Strong east current
2/27/02	Down current	38	3000	23	3.43	Second diver in water at 0840
2,21,02	20 Janon		0835	7.5	3.96	Next reading: 0845

Bradford Island In-Water Removal Work

Monitoring Location: Pile 2

Monitoring Dates: 2/22, 2/23, 2/25, 2/26, 2/27/2002

**Weather:** 2/22: Cloudy, 50-55 F, wind ~10-15 mph

2/23: Rain, 45 F, wind 5-10 mph 2/25: Sunny, clear, very windy

2/26: Sunny, 60 F, very calm, slight breeze

2/27: Sunny, 35 F, calm, slight easterly wind

Date	Station	Total River Depth (ft) <sup>1</sup>	Time		Turbidity Reading (NTU)	Notes/Next Reading <sup>3,4</sup>
			0845	30.5	5.43	Next reading: 0900
2/27/02	Down current	38		23	5.64	
			0850	7.5	6.27	
			0900	30.5	5.22	Visibility 5 feet
2/27/02	Down current	38		23	5.64	Next reading: 0915
			0905	7.5	7.71	
			0915	30.5	4.77	Next reading: 0935
2/27/02	Down current	38		23	5.43	
			0925	7.5	6.86	
			0935	30.5	5.43	Visibility 5 feet
2/27/02	Down current	38		23	5.64	Next reading: 0950
			0940	7.5	7.98	
			0950	30.5	4.5	Next reading: 1005
2/27/02	Down current	38		23	5.22	
			0955	7.5	7.5	
			1005	30.5	5.22	Next reading: 1020
2/27/02	Down current	38		23	5.43	
			1010	7.5	8.16	
			1020	30.5	4.77	Divers complete survey
2/27/02	Down current	38		23	5.22	Began removing anchors
			1030	7.5	6.27	Divers out of water at 1035, mobilize to Pile 1 1045-1345

#### Notes:

<sup>&</sup>lt;sup>1</sup>River depth measured from average pool elevation to river bottom at the location of the turbidity monitoring station.

 $<sup>^2\</sup>mbox{Turbidity}$  meter readings will be collected at 20%, 60%, and 80% of the river depth.

<sup>&</sup>lt;sup>3</sup>Note any visual observations of turbidity.

<sup>&</sup>lt;sup>4</sup>Enter in the estimated time that the next turbidity readings will be recorded.

Bradford Island In-Water Removal Work

Monitoring Location: Pile 3

Monitoring Date: 2/21/02

Weather: Rain, 45-50 F

Date	Station	Total River Depth (ft) <sup>1</sup>	Time	Depth of Reading (ft) <sup>2</sup>	Turbidity Reading (NTU)	Notes/Next Reading <sup>3,4</sup>
				15	3.48	Initial reading
2/21/02	Up current (Materials barge)	50	0745	30	4.26	No divers in water
				40	3.08	Next reading: ~0945
				26	4.77	Initial reading
2/21/02	Down current	32	0755	14.5	4.98	No divers in water
				6.5	5.22	
			0825	22	4.67	Adjusted depths-current much slower than on 2/20
2/21/02	Down current	27.5		16.5	4.88	Diver in water at 0810
			0830	5.5	5.33	Visibility 7 feet
			0840	26	5.54	Current picked up
2/21/02	Down current	32		19.5	5.43	Adjust depths
			0845	6.5	6.16	
			0855	26	5.54	Next reading: 0910
2/21/02	Down current	32		19.5	5.54	
			0900	6.5	5.75	
			0910	26	5.54	Next reading: 0925
2/21/02	Down current	32		19.5	5.56	
			0915	6.5	6.16	
			0925	26	5.54	0920: Second diver in water
2/21/02	Down current	32		19.5	5.33	Next reading: 0940
			0930	6.5	5.75	
			0940	26	5.96	Visibility 7 feet
2/21/02	Down current	32		19.5	5.43	, in the second
			0945	6.5	5.75	
			0955	40	4.26	Next reading: 1200
2/21/02	Up current (Materials barge)	50		30	4.26	
			1000	10	4.66	
			1015	26	7.42	Visibility 7 feet
2/21/02	Down current	32		19.5	7.63	Next reading: 1030
			1020	6.5	8.06	
			1030	26	7.63	Next reading: 1045
2/21/02	Down current	32		19.5	8.06	1
			1035	6.5	8.06	

Bradford Island In-Water Removal Work

Monitoring Location: Pile 3

Monitoring Date: 2/21/02

Weather: Rain, 45-50 F

Date	Station	Total River Depth (ft) <sup>1</sup>	Time	Depth of Reading (ft) <sup>2</sup>	Turbidity Reading (NTU)	Notes/Next Reading <sup>3,4</sup>
			1045	26	7.4	Next reading: 1100
2/21/02	/21/02 Down current	32		19.5	7.55	S .
			1050	6.5	8.27	
			1100	26	7.42	1100: One diver and work basket out of water
2/21/02	Down current	32		19.5	7.63	Next reading: 1115
			1105	6.5	8.06	
			1115	26	7.73	1100: Pull anchors out
2/21/02	Down current	32		19.5	8.16	Removal at Pile #3 complete
			1120	6.5	8.36	·
		1130	26	7.64	Last diver out of water at 1125	
2/21/02	Down current	32		19.5	7.83	
				6.5	8.06	
			1150	26	7.5	1151: Diver in water to remove last anchor
2/21/02	Down current	32		19.5	8.06	
			1155	6.5	8.36	
			1205	26	8.46	Next reading: 1220
2/21/02	Down current	32		19.5	8.16	
			1210	6.5	7.73	
			1220	26	8.06	Next reading: 1235
2/21/02	Down current	32		19.5	8.36	
			1225	6.5	8.87	
			1235	26	7.83	Still removing anchors
2/21/02	Down current	32		19.5	8.98	Cannot get to BGD location due to crane activity
			1240	6.5	9.39	
			1250	26	8.36	1230: Diver out of water
2/21/02	Down current	32		19.5	8.76	Work at pile completed
			1255	6.5	9.28	

1250-1445: Mobilization from Pile 3 to Pile 2

1445-1630: URS recons shoreline: found several seeps, found more concrete and metal (rope, cable, bolts) debris

#### Notes:

<sup>&</sup>lt;sup>1</sup>River depth measured from average pool elevation to river bottom at the location of the turbidity monitoring station.

<sup>&</sup>lt;sup>2</sup>Turbidity meter readings will be collected at 20%, 60%, and 80% of the river depth.

<sup>&</sup>lt;sup>3</sup>Note any visual observations of turbidity.

<sup>&</sup>lt;sup>4</sup>Enter in the estimated time that the next turbidity readings will be recorded.